

NatureServe and NBII: Biodiversity Information for Conservation

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Background

The National Biological Information Infrastructure (NBII) <www.nbii.gov> is an electronic information network coordinated by the U.S. Geological Survey (USGS) that provides access to biological data and information on our nation's plants, animals, and ecosystems. Data and information maintained by federal, state, and local government agencies; non-government organizations; and private-sector organizations are linked through the NBII gateway and made accessible to a variety of audiences including researchers, natural resource managers, decision-makers, educators, students, and other private citizens.

Implementation of the NBII is being accomplished through the development of nodes that serve as interconnected entry points to the NBII and the information held by partners. These nodes function as fully digital, distributed, and interactive systems that focus on developing, acquiring, and managing content on a defined subject area (thematic nodes) or a geographic region (regional nodes).



NatureServe Explorer is a highly acclaimed Web site that offers information on 50,000 plants, animals, and ecological communities of the United States and Canada.

Since its founding in 1993, the NBII has been committed to "building knowledge through partnerships." One of the NBII's key partners is NatureServe, a non-profit organization that coordinates the network of state natural heritage programs and is a leading source of information about the nation's species and ecosystems at risk.

Overview

The United States harbors a vast array of plant and animal species, many of which have declined greatly in abundance and are now at increased risk of extinction. Sustaining these species, and the habitats on which they depend, requires reliable information about what species exist, how they are faring, and where they are found. NatureServe and its natural heritage program partners have developed comprehensive databases documenting the condition and location of the nation's species and ecosystems. Representing nearly 30 years of biological inventory and data management effort, these data help

conservationists, land use planners, natural resource managers, and many others in their work.

Specific uses of NatureServe data include:

- Setting priorities for the acquisition of conservation lands and management of wildlife habitat,
- Supporting environmental reviews of development and land use plans,
- Certifying sustainable timber harvesting, and
- Targeting environmental and wildlife incentive programs.

A broad chasm often separates the world of science from that of most planners, policy-makers, and natural resource managers. NatureServe and its state-based network are committed to bridging this gap by transforming reliable scientific data into information and knowledge relevant to end-users. The NBII is partnering with NatureServe to bridge this gap, especially through helping improve the electronic

availability of this extensive and proven data resource. Representative of this partnership, NatureServe and the NBII entered into a cooperative agreement to support a NBII Liaison/Web Manager position. The key roles of this position are to establish stronger linkages between NatureServe and other NBII nodes and initiatives, and to enhance the public availability of scientific information through the NatureServe Web site.

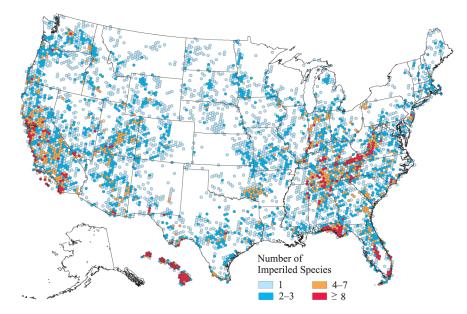
Partners

A key focus of the NBII's partnership with NatureServe is on improving linkages between the state natural heritage programs and other NBII nodes. Natural heritage programs operate in all 50 states, the Tennessee Valley Authority, and the Navajo Nation. Typically, these programs are a part of state agencies with wildlife or natural resource management responsibilities.

NatureServe represents a new institutional home for the biological inventory and information management activities of The Nature Conservancy and maintains a close partnership with that organization. NatureServe is also a key collaborator in an array of international biodiversity information initiatives, including the IUCN Red List Program, the Global Biodiversity Information Facility, the Convention on Biological Diversity's Clearinghouse Mechanism, the Inter-American Biodiversity Information Network, and the North American Biodiversity Information Network.

Products

NatureServe Explorer www.natureserve.org/explorer is a highly acclaimed Web site that offers conservation-relevant information on more than 50,000 plants, animals, and ecological communities of the United States and Canada. Already a major destination for the public and professionals alike, future enhancements will include a new species distribution mapping feature (using ARC/IMS), as well as images



The consistency of natural heritage data from state to state allows NatureServe to offer a truly national perspective for imperiled species.

illustrating the various plants and animals. To better serve the NBII community and others, NatureServe's home page <www.natureserve.org> is being redesigned to add new content and functions, including a portal to online information products from across the network of state natural heritage programs.

The U.S. National Vegetation Classification provides a consistent method of describing ecological communities across the United States and has been adopted by the Federal Geographic Data Committee as an interagency standard. Developed by NatureServe in collaboration with a number of partners, this classification forms the basis for a major USGS/National Park Service effort to map the U.S. National Parks, and supports the mapping efforts of the USGS's national Gap Analysis Program.

Several major efforts to develop environmental indicators rely on NatureServe's species and ecosystem data including projects by the Heinz Center, U.S. Environmental Protection Agency, and North American Commission on Environmental Cooperation. NatureServe also summarizes its scientific information in a variety of publications designed to be scientifically rigorous but publicly accessible. The book Precious Heritage: The Status of Biodiversity in the United States (Oxford University Press) offers a comprehensive overview of the nation's plants, animals, and ecosystems, while NatureServe's recent report States of the Union: Ranking America's Biodiversity considers where each state stands according to several key biological factors.

For More Information

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